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United States Patent [19]

Zetts

[54] COMPUTER BASED PEN SYSTEM AND METHOD FOR AUTOMATICALLY CANCELLING UNWANTED GESTURES AND PREVENTING ANOMALOUS SIGNALS AS

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INPUTS TO SUCH SYSTEM

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382/13; 235/375; 364/700

[56] References Cited

U.S. PATENT DOCUMENTS

4,608,658 4,633,436	8/1986 12/1986	WardFlurry .	364/574
4,839,634	6/1989	More et al.	340/712
4,953,226	8/1990	Matsuyama	. 382/13
5,155,813	10/1992	Donoghue et al	395/275
5,159,159	10/1992	Asher.	
5,231,698	7/1993	Forcier	395/146
5,313,051	5/1994	Brigida et al	235/375
5,404,458	4/1995	Zetts	395/275
5,502,803	3/1996	Koshida et al	395/146

FOREIGN PATENT DOCUMENTS

536579 9/1992 European Pat. Off. .

OTHER PUBLICATIONS

Moriya et al., vol. 32, No. 8, Aug. 1991, pp. 1022–1029. Transactions of the Info. Processing Soc. of Japan. S. D. Chen et al., IBM Technical Disclosure Bulletin, vol. 25, No. 9, Feb. 1983, pp. 4925–4927; "Interactive Sketching Tool for Plasma Displays".

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[57] ABSTRACT

A method and system for a pen-based computer system allow a user to automatically cancel a gesture in progress under several different conditions and terminate the operation of the system in a gesture recognition motion. In a first condition, a gesture cancel timeout period is stored in a memory of the system. The cancel timeout period is definitive of holding the input device in a motionless condition. When the timeout period is exceeded, a software application program recognize the excessive time period, terminates the operation of the system in gesture recognition mode. In another condition, a motion area is defined in the program for the input device. When the gesture executed by the input device exceeds the pre-defined motion area, the application program recognizes the excessive motion and terminates the operation of the system in the gesture recognition mode. In another condition, each input device is identified and stored in memory. When a gesture is being performed and a change in input devices occurs, the program recognizes the difference in the identifications of the input devices and terminates the operation of the system in a gesture recognition mode. The system also automatically terminates the gesture mode of operation when anomalous signals, such as hand trembling or false or unwanted gestures are inputted to the system.

8 Claims, 6 Drawing Sheets

